



EXPEDITIONARY
LEARNING

Grade 5: Module 4: Unit 1: Lesson 4

Mid-Unit Assessment: Text-Dependent Short Answer Quiz – The Effects Of Natural Disasters



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Long-Term Targets Addressed (Based on NYSP12 ELA CCLS)

I can explain what a text says using quotes from the text. (RI.5.1)

I can explain important relationships between people, events, and ideas in a historical, scientific, or technical text using specific details in the text. (RI.5.3)

I can determine the meaning of academic words or phrases in an informational text. (RI.5.4)

I can determine the meaning of content words or phrases in an informational text. (RI.5.4)

Supporting Learning Targets

- I can explain the relationship between scientific concepts about earthquakes and hurricanes using specific details from text.
- I can determine the meaning of new words from context about natural disasters.
- I can reflect on my learning.

Ongoing Assessment

- Mid-Unit 1 Assessment
- Tracking My Progress recording form



Agenda	Teaching Notes
<ol style="list-style-type: none">Opening<ol style="list-style-type: none">Checking Independent Reading Homework (8 minutes)Review Learning Targets (2 minutes)Work Time<ol style="list-style-type: none">Mid-Unit Assessment (20 minutes)Read Aloud and Chunking the Text: Relationships between Science Concepts and Earthquakes (15 minutes)Tracking My Progress (10 minutes)Closing and Assessment<ol style="list-style-type: none">Debrief: Sharing Reflections (5 minutes)Homework<ol style="list-style-type: none">Reread the articles “Earthquakes!” and “How Do Hurricanes Form?”Add new information from the articles to the Earthquakes and Hurricanes note-catchers	<ul style="list-style-type: none">Review and be familiar with Mid-Unit Assessment: Text-Dependent Short-Answer Quiz—The Effects of Natural DisastersIn this lesson, students formally self-assess on their progress towards the learning targets.Students read the text “How Do Hurricanes Form?” during their mid-unit assessment (note that this text has a similar name to the article “How Does a Hurricane Form?” from Lesson 3. However, the type and presentation of information is different in each article.) They then hear the text “Earthquakes!” read aloud by the teacher and do some work with key vocabulary in preparation for Lesson 5. The students reread these texts for homework, so be sure to have a second, clean “How Do Hurricanes Form?” text prepared for students to take home with them.The text—“Earthquakes!”—is significantly above grade level; hence it is read aloud before students reread for homework.



Lesson Vocabulary	Materials
determine, relationships, context, reflect; exponential	<ul style="list-style-type: none">• Journals• Students' independent reading books• What Do We Know about Natural Disasters? anchor chart (Lesson 1)• Things Close Readers Do anchor chart (from Module 3)• "How Do Hurricanes Form?" (one per student, for assessment; one clean copy per student, for homework)• Mid-Unit Assessment: Text-Dependent Short-Answer Quiz—The Effects of Natural Disasters (one per student)• "Earthquakes!" text (assessment text; one per student)• Tracking My Progress, Mid-Unit 1 recording form (one per student)• Earthquake Concepts note-catcher (begun in Lesson 2)• Hurricane Concepts note-catcher (begun in Lesson 3)



Opening	Meeting Students' Needs
<p>A. Checking Independent Reading Homework (8 minutes)</p> <ul style="list-style-type: none">• Ask students to take out their journals as well as their independent reading book with evidence flags from homework.• Focus their attention on the What Do We Know about Natural Disasters? anchor chart they started in the first lesson. Ask students to turn to a partner and share a piece of evidence from their independent reading book that they flagged for homework that could added to the anchor chart.• Call on several students to share their evidence. Add them to the class anchor chart and invite students to do the same in their anchor charts in their journals as well as add any others they may have found evidence for during their reading.	<ul style="list-style-type: none">• Consider partnering ELL students with other students who speak the same L1.• Students who struggle with language may need warning that they will be called upon to share aloud. Give those students a few minutes to prepare what they will say in front of the whole class.
<p>B. Review Learning Targets (2 minutes)</p> <ul style="list-style-type: none">• Review the first two learning targets:<ul style="list-style-type: none">* “I can explain the relationship between scientific concepts about earthquakes and hurricanes using specific details from text.”* “I can determine the meaning of new words from context about natural disasters.”• Remind students they have been working on these learning targets in the past few lessons; there is no trick to today's assessment.• Ask several students to restate each target in their own words. Be sure their restatements give the meaning of the words: <i>determine</i> (figure out), <i>relationships</i> (what things have to do with one another or connections), <i>context</i> (meaning from the text).	<ul style="list-style-type: none">• Provide nonlinguistic symbols (e.g., a magnifying glass for <i>determine</i>, two connected rings for <i>relationships</i>) for academic words in learning targets.



Work Time	Meeting Students' Needs
<p>A. Mid-Unit Assessment (20 minutes)</p> <ul style="list-style-type: none">• Tell students that for the Mid-Unit Assessment they will read independently one new article about hurricanes. They will then answer questions about what they have read. Congratulate them on how hard they have been working on reading complex texts.• Review with students strategies for reading new texts, such as the ones listed on the Things Close Readers Do anchor chart from previous modules.• Distribute the article “How Do Hurricanes Form?” as well as the Mid- Unit 1 Assessment: Text-Dependent Short-Answer Quiz—The Effects of Natural Disasters.• Review the instructions with students. Invite students to quickly scan the assessment. Tell them that they will have about 20 minutes to read the article and complete the questions on the assessment. Address any clarifying questions.• Give students 20 minutes to work independently. Circulate to supervise and redirect as needed. Since this is a formal on-demand assessment, do not provide support other than formally approved accommodations.• If students finish the assessment before the 20 minutes is up, encourage them to do one of the following:<ol style="list-style-type: none">1. Add new information to the appropriate columns of the Hurricanes anchor chart in your journals.2. Add new words to your glossary.3. Continue reading your independent reading book.• Collect students' Mid-Unit Assessments.	<ul style="list-style-type: none">• Consider providing a chunked version (a few paragraphs) of the article “How Do Hurricanes Form?” to students who struggle with reading grade-level text.• Provide extended time to complete the mid-unit assessment for identified ELL or IEP students who struggle with language.



Work Time (continued)	Meeting Students' Needs
<p>B. Read Aloud and Chunking the Text: Relationships between Science Concepts about Earthquakes (15 minutes)</p> <ul style="list-style-type: none">• Distribute the article “Earthquakes!” to students. Tell them that they are going to read this article together as a class in order to prepare for the next lesson—where they will be adding information to the Concepts note-catchers. Remind students to follow along silently as you read aloud.• Read from the start of the article through the phrase “... In a level 8 earthquake, many buildings will fall down.”• Remind students that when they are reading difficult text, it is often helpful to chunk it: to read a bit, then stop to think, talk, or write. Ask students to think about and then discuss with a partner:<ul style="list-style-type: none">* “What does the word <i>exponential</i> mean?”• Call on a few partners to share their discussion. Listen for: “It means that the next number in the scale is 10 times as strong as the one before. So an earthquake rated 7 is 10 times bigger than one rated 6.” Be sure students understand that this is the way the strength of an earthquake is measured and that usually the stronger the earthquake, the more damage is caused, making it more likely to be a disaster.• Focus students back on the text. Begin reading again starting with, “Because most of the Earth is covered by oceans ...” until the end of the article.• Ask students to think about and discuss with another partner:<ul style="list-style-type: none">* “What is a tsunami, and how is it formed?”• Remind them to refer to their text for evidence as they discuss with their partner.• Invite a few students to share their thinking about tsunamis. Listen for: “A huge wave caused by an earthquake in the ocean,” and “Tsunamis are formed when earthquakes happen in the ocean. Water pulls together and it forms a huge wave.”• Tell students that if tsunamis reach land, they often cause major damage and are considered a disaster.• Tell students they will reread both texts they worked with today as a part of their homework. They will look for more evidence to add to their note-catchers.	<ul style="list-style-type: none">• Students who struggle with reading complex text may need the text read aloud to them several times.• Consider giving the Earthquakes! article in paragraphs (chunks) to students that struggle reading a lot of text at once.



Work Time (continued)	Meeting Students' Needs
<p>C. Tracking My Progress (10 minutes)</p> <ul style="list-style-type: none">• Introduce the final learning target: “I can reflect on my learning.” Focus on the word reflect and ask students for suggestions about what this means. Listen for them to share ideas such as: “look back at my work to think about what I did,” “how I did,” “what I am having trouble with,” “what I am doing well,” etc.• Remind students that they have done this type of self-assessment at the end of most mid-unit and end of unit assessments during previous modules.• Distribute the Tracking My Progress, Mid-Unit 1 recording form. Read through the tracker and provide clarification as necessary for students.• Ask students to independently complete their Tracking My Progress forms and keep this sheet to refer to during the debrief.	<ul style="list-style-type: none">• Consider allowing students who struggle with written language to dictate their Tracking My Progress to the teacher or a partner.



Closing and Assessment	Meeting Students' Needs
<p>A. Debrief: Sharing Reflections (5 minutes)</p> <ul style="list-style-type: none">• Ask students to share with a partner the reflections on their Tracking My Progress recording forms.• As time permits, invite several students to share out whole group. Collect students' Tracking My Progress forms and return their Earthquake Concepts and Hurricane Concepts note-catchers.	<ul style="list-style-type: none">• Strategically partner students so that students who struggle with language are paired with students who have stronger language skills.
Homework	Meeting Students' Needs
<ul style="list-style-type: none">• Reread the articles “Earthquakes!” and “How Do Hurricanes Form?”• Add new information from the articles to the Earthquake and Hurricane Concepts note-catchers in your journal. (from Lesson 2).• Be prepared to share your note-catchers. <p><i>Note: Review students' Mid-Unit 1 Assessments and Tracking My Progress forms.</i></p>	<ul style="list-style-type: none">• Consider providing audio recordings of the articles to students who struggle with reading complex text.• Provide pre-highlighted articles for students who have difficulty determining details to add to their note-catchers.



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Supporting Materials



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Mid-Unit 1 Assessment:
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

Name:

Date:

Instructions

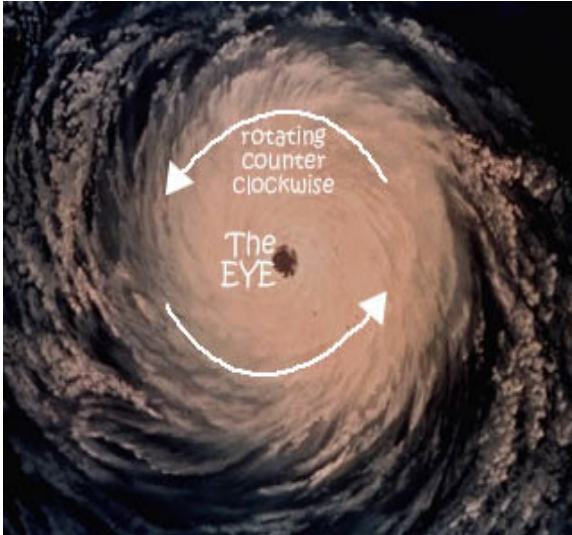
1. Read the article “How Do Hurricanes Form?”
2. Determine the gist of the article—what is it mostly about?
3. Skim the assessment questions.
4. Reread the article, thinking about the assessment questions.
5. Answer the questions.
6. Be sure to cite evidence from the text to support your answers.



Mid-Unit 1 Assessment:

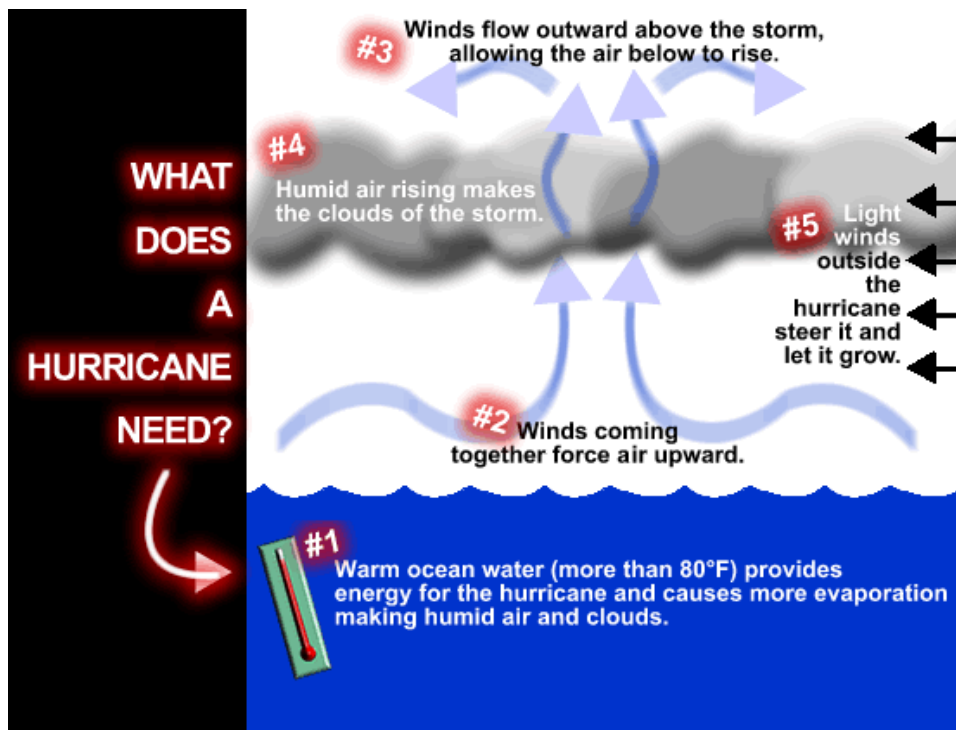
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

How Do Hurricanes Form?



How Hurricanes Work

Hurricanes are huge storms! They can be up to 600 miles across and have strong winds spiraling inward and upward at speeds of 75 to 200 mph. Each hurricane lasts for over a week, moving 10-20 miles per hour over the open ocean. With warm air at its center, a hurricane is different from extratropical cyclones, which are the most common type of storm in the United States. The center of the storm is the calmest part. It is called the eye and has only light winds and fair weather. The low level storm winds blow counterclockwise around the eye in the Northern Hemisphere (clockwise in the Southern Hemisphere). Above 9 km, winds spiral outwards and clockwise in the Northern Hemisphere.





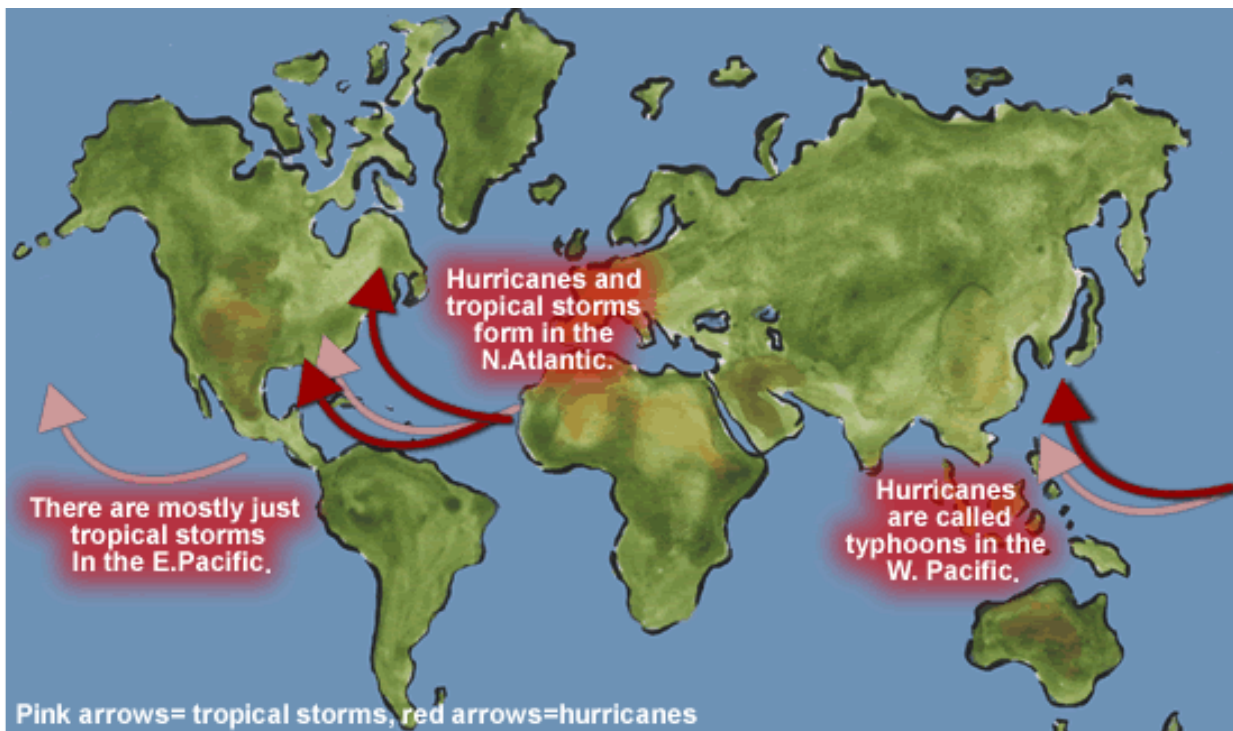
Mid-Unit 1 Assessment:

Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

Where and When Do They Form?

Hurricanes do an important job for the Earth. They help move heat from warm tropical places to the cooler temperate zone. To do this, they typically form between 5 to 15 degrees latitude north and south of the equator. Then, they thunder across the warm oceans of the world such as the Atlantic, the Gulf of Mexico, the Caribbean, and the Western Pacific Ocean (where they are called typhoons), up to higher latitudes.

Hurricanes happen when the oceans have been warmed during summer months. In the North Atlantic, hurricane season is from June 1 to November 30, but most hurricanes happen during the fall.





Mid-Unit 1 Assessment:
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

Storm Surge

As a hurricane's winds spiral around and around the storm, they push water into a mound at the storm's center. This mound of water becomes dangerous when the storm reaches land because it causes flooding along the coast. The water piles up, unable to escape anywhere but on land as the storm carries it landward. A hurricane will cause more storm surge in areas where the ocean floor slopes gradually.

When high tide happens at the same time as a storm surge, the combination of the two is called storm tide. During a storm tide, the water level may be 20 feet or more above normal. This causes huge floods. Storm tide is especially dangerous for islands or coastal areas where even a few feet of surge may cause large areas of flooding.

FK: 7.6

Lexile: 1050



Mid-Unit 1 Assessment:
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

Questions:

1. The text says, “It is called the eye and has only light winds and *fair* weather.” What does *fair* mean in this sentence? How did you figure this word out?

2. Why would a hurricane *not* form in Alaska? Quote the text in your answer.

3. What does the word *season* mean in the text? Be sure to use evidence from the text to support your answer.



Mid-Unit 1 Assessment:
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters

4. Place in order the steps that lead to a *storm surge*.

- | | |
|----------|--|
| 1. _____ | Water piles up, unable to escape anywhere but on land. |
| 2. _____ | Water is pushed into a mound at the center of the storm. |
| 3. _____ | The hurricane causes a storm surge. |
| 4. _____ | The storm reaches land. |
| 5. _____ | Hurricane winds spiral around the storm. |



Mid-Unit 1 Assessment:
Text-Dependent Short-Answer Quiz – The Effects of Natural Disasters
Answers for Teacher Reference

Questions:

1. The text says, “It is called the eye and has only light winds and *fair* weather.” What does *fair* mean in this sentence? How did you figure this word out? **(RI.5.4)**

Fair means calm or nice weather. I figured this out because the article says the center, the eye, of the storm is the calmest part of the storm.

2. Why would a hurricane *not* form in Alaska? Quote the text in your answer. **(RI.5.1)**

A hurricane would not form in Alaska because the article says they typically form near the equator; they move heat from warm tropical areas and move across warm oceans.

3. What does the word *season* mean in the text? Be sure to use evidence from the text to support your answer.

A season is a time of year that something happens. I figured this out because the article says that, “hurricane season is from June 1 to November 30, but most hurricanes happen during the fall.” “Fall” is also a season or time of year.

4. Place in order the steps that lead to a *storm surge*.

4
2
5
3
1



“Earthquakes!”

Earthquakes happen when the moving tectonic plates that make up the surface of the Earth move apart or bump into each other, or slide under each other. This movement tears apart the surface of the Earth, or crunches it up. Most often, this just means a little shaking for a few seconds, and nothing very serious happens.

Several times a year, though, somewhere in the world there is enough movement to really shake the earth a lot, and the earthquake is serious enough to knock down buildings. When the buildings fall on people, many people can be killed in a few minutes. The strongest earthquakes can break trees in half.

The Richter scale (or ML scale) rates earthquakes on an exponential scale, so that if an earthquake is rated 1, you can hardly feel it, but an earthquake rated 2 is ten times as strong as an earthquake rated 1, and an earthquake rated 3 is ten times as strong as an earthquake rated 2. Only a few people feel a level 1 earthquake. In a level 2 earthquake, a few people who are resting may feel it, especially if they're near the top of a tall building. Nearly everyone will feel a level 5 earthquake, and some dishes and windows will break. At level 6, heavy furniture moves around, and many people will feel frightened, but there's not really much damage. In a level 8 earthquake, many buildings will fall down.

Because most of the Earth is covered by oceans, earthquakes often happen in the ocean. Usually this just shakes the water and people don't notice. But sometimes the water pulls all together into a huge wave called a tsunami (tsoo-NAMM-ee).

Because at least some other planets, like Mars, probably have tectonic plates like Earth, they probably also have earthquakes.

Lexile: 1240 (*sentence length 20.13, impacting Lexile)/FK: 8.2

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Tracking My Progress:

Mid-Unit 1

Name: _____

Date: _____

Learning Target: I can explain the relationship between scientific concepts about earthquakes and hurricanes using specific details from text.

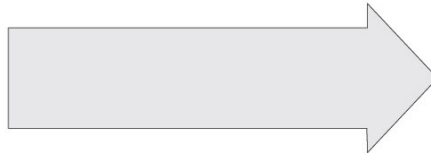
1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help
to learn this.**



**I understand
some of this.**



I am on my way!



3. The evidence to support my self-assessment is:



Tracking My Progress:
Mid-Unit 1

Name: _____

Date: _____

Learning Target: I can determine the meaning of new words from context about natural disasters.

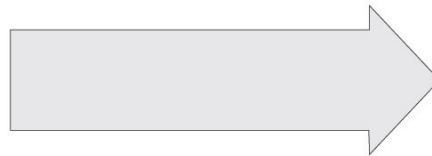
1. The target in my own words is:

2. How am I doing? Circle one.

**I need more help
to learn this.**



**I understand
some of this.**



I am on my way!



3. The evidence to support my self-assessment is:
